

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A blood pump for percutaneous introduction into a patient, comprising:

a pump housing configured to be inserted into a heart of the patient using a minimally invasive procedure, said pump housing having at least two blood inlets, at least one blood outlet, and a rotor chamber extending between said two blood inlets and said blood outlet; and

a rotor disposed within said rotor chamber of said pump housing and operable to draw blood into said two blood inlets and direct blood out said blood outlet.

2. (Original) The blood pump of claim 1 and further, wherein said at least two blood inlets are disposed on opposing ends of said pump housing.

3. (Original) The blood pump of claim 2 and further, wherein said blood outlet is disposed generally between said at least two blood inlets.

4. (Original) The blood pump of claim 1 and further, including an outflow cannula coupled to said blood outlet.

5. (Original) The blood pump of claim 4 and further, wherein said outflow cannula is dimensioned to extend across a valve within the patient's heart.

6. (Original) The blood pump of claim 4 and further, wherein said cannula is dimensioned to extend through an opening created in the atrial septum of the patient's heart.
7. (Original) The blood pump of claim 4 and further, wherein said cannula is dimensioned to extend through an opening created in the aorta of the patient's heart.
8. (Original) The blood pump of claim 1 and further, wherein said pump housing and said rotor are equipped with cooperating magnets to position said rotor within said pump housing.
9. (Original) The blood pump of claim 1 and further, wherein said pumping housing and said rotor are equipped with thrust bearings.
10. (Original) The blood pump of claim 9 and further, wherein said thrust bearings includes a least one magnet.
11. (Original) The blood pump of claim 1 and further, including a protective cage disposed over at least one of said blood inlets.
12. (Original) The blood pump of claim 1 and further, including a control system for controlling the operation of said rotor.

13. (Original) The blood pump of claim 12 and further, wherein said control system including at least one battery coupled to an electric motor formed by magnets on said pump housing and said rotor.

14. (Original) The blood pump of claim 13 and further, wherein said battery is rechargeable.

15. (Original) The blood pump of claim 14 and further, wherein said battery is subcutaneous and said recharging is accomplished via an inductive coil.

16. (New) A blood pump for percutaneous introduction into a patient, comprising:

a pump housing having at least two blood inlets, at least one blood outlet, and a rotor chamber extending between said two blood inlets and said blood outlet, each of said at least two blood inlets tapering from a first end toward a second end, said second end communicating with said rotor chamber; and

a rotor disposed within said rotor chamber and operable to draw blood into said two blood inlets and direct blood out said blood outlet.

17. (New) The blood pump of claim 16, further comprising an outflow cannula coupled to said blood outlet, said outflow cannula being integrally formed with said pump housing.

18. (New) The blood pump of claim 16, further comprising a discharge chamber in fluid communication with said blood outlet, said discharge chamber being generally parallel to said rotor chamber.

19. (New) The blood pump of claim 16, wherein said rotor comprises a first end and a second end, each of said first end and said second end comprising a first magnet.

20. (New) The blood pump of claim 19, wherein a second magnet is disposed within each of said blood inlets, said first magnet and said second magnet limiting longitudinal movement of said rotor.